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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/811,579	03/20/2001	Kenneth A. Welchman	174-946	1383

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EXAMINER

NGUYEN, SANG H

ART UNIT	PAPER NUMBER
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2877

DATE MAILED: 12/26/2001

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/811,579

Applicant(s)

WELCHMAN ET AL.

Examiner

Sang Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03/20/01.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 4-5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

* Claim 4 and 5 recites the limitation "said detector" in claim 4 line 7; and "the detector" in claim 5 line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any

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evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103© and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1 and 8-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kumagai (U.S. Patent No. 6,031,933) in view of Yoshikawa et al (U.S. Patent No. 5,286,532).

Regarding claims 1 and 8-13; Kumagai discloses the claimed invention, for example, a method and an automated inspection system for automatically inspecting a surface of a game ball, the automated inspection system comprising:

- * an imaging system (figure 1A) having a camera is considered as a detector (4 of figure 1A) and a light source (3 of figure 1A) that arranged to detect a defect (10 of figures 2A-2F) of the presence of a substance applied (col.1 lines 50-57 and col.2 lines 49-52) on the surface of the golf ball (1 of figure 1A) and to generate a detection signal representative of the defect (10) on the surface of the golf ball (1); and

- * an analyzer (a converter [5 of figure 1], a computer or a machine vision engine [6 of figure 1], and a display [7 of figure 1]) coupled to the imaging system (3,4 of figure 1) to receive the detection signal (figure 1) from the imaging system (3,4) and analyze the detection signal to determine conformance of the surface to production standards or threshold set (col.2 line 64 to col.3 line 3 and lines 25-65). However, Kumagai fails to disclose the substance applied to the surface treatment of the golf ball. From the same field of endeavor, Yoshikawa et al discloses a

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method and an apparatus for applying the substance or coating to the surface treatment of the golf ball (Abstract and col.1 lines 5-28).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Kumagai's method and apparatus for automatically inspecting the surface of the golf ball by including applying the substance or coating film to the surface treatment of the golf ball as taught by Yoshikawa et al. This modification will provide an inspection station that will have the treatment of the game ball integrated with the inspection station.

5. Claims 2-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kumagai and Yoshikawa et al as applied to claim 1 above, and further in view of Tao (U.S. Patent No. 5,732,147).

Regarding claims 2-4; Kumagai and Yoshikawa et al discloses the claimed invention as described above for claim 1 , except for an inspection responsive device is a reject device is considered a reject controller, wherein the inspection responsive device coupled to the analyzer for receiving the analysis signal and performing an act on the inspected golf balls associated with the analysis signal. However, from the same field of endeavor, Tao discloses further an inspection responsive device (55 of figure 2) is a reject device is considered a reject controller (1735 of figure 17), wherein the inspection responsive device (55 of figure 2) coupled to the analyzer for receiving the analysis signal and performing an act on the inspected golf balls or apples (col.14 lines 11-20 wherein the preferred the invention is broader and may be used for

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detect analysis of other types of objects such as golf ball, baseballs, softballs, and etc..) associated with the analysis signal (col.3 lines 29-40). See figures 2, 9, 10, and 17. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Kumagai's and Yoshikawa et al's a method and apparatus for automatically inspecting the surface of the golf ball by including in an inspection responsive device is a reject device, wherein the inspection responsive device coupled to the analyzer for receiving the analysis signal and performing an act on the inspected golf balls associated with the analysis signal as taught by Tao. This modification will provide an inspection station that will have an inspection responsive device is a reject device for the purpose of rejecting the detecting defect on the surface treatment of the golf ball.

6. Claims 5-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kumagai and Yoshikawa et al as applied to claim 1 above, and further in view of Yamada (JP 08 309 262).

Regarding claims 5-7; Kumagai and Yoshikawa et al discloses the claimed invention substantially as disclose and as described above for claim 1. However, they fail to discloses the imaging system comprising an environmental modification device is an UV irradiation apparatus for radiating UV beam onto surface of the golf ball that is coated with a coating film and detecting by the imaging system, wherein the coating containing an agent that is illuminated under non-ambient lighting conditions is applied to surface of golf ball, and coating or ink is applied to the golf ball surface in the form of an indicium. Yamada teaches that the imaging system having an environmental modification device is an UV irradiation apparatus (2 of figure

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1) for radiating UV beam (L of figure 1) onto surface of the golf ball (1 of figure 1) that is coated with a coating film (figure 1 and abstract) and detecting by the imaging system (figure 1), wherein the coating containing an agent (abstract) that is illuminated under non-ambient lighting conditions is applied to surface of golf ball (1), and coating or ink is applied to the golf ball surface in the form of an indicium (figure 4) (see Abstract and figures 1-4).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Kumagai's and Yoshikawa et al's method and apparatus for inspecting surface of a golf ball by including in the imaging system having an environmental modification device is an UV irradiation apparatus for radiating UV beam onto surface of the golf ball that is coated with a coating film and detecting by the imaging system, wherein the coating containing an agent that is illuminated under non-ambient lighting conditions is applied to surface of golf ball, and coating or ink is applied to the golf ball surface in the form of an indicium as taught by Yamada for the purpose of measuring coating film on the surface of golf ball with fluorescent brightening agent .

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Kumagai et al (5,703,687) discloses method and apparatus for inspecting the outer appearance of a spherical article; Ohira et al (5,985,370) discloses surface treatment of golf ball; Shimosaka et al (5,966,213) discloses method and apparatus for measuring the surface of a golf

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ball; Kumagai (JP 09 326 034) discloses method and device for inspecting marks or the like provided on curved surface of elastic body; or Oyachi et al (JP 06 016 844) discloses apparatus for surface treatment of golf ball.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Sang Nguyen whose telephone number (703)308-6426. The examiner can normally be reached on Monday through Friday from 8:30 am to 5:00 pm.

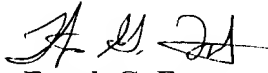
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Frank Font, can be reached on (703)308-4881. The fax phone number for the organization where this application or proceeding is assigned is (703)308-7722 or 7724.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0956.

SN

Nguyen/ sn

December 4, 2001


Frank G. Font
Supervisory Patent Examiner
Technology Center 2800